

CLAIM AMENDMENTS

Claim 1. (currently amended) A composition suitable for use as a traction fluid, comprising a substantially completely hydrogenated addition product of

(a) at least one vinyl arene monomer containing a cyclic hydrocarbon structure, with

(b) at least one branched non-cyclic olefin monomer of at least 4 carbon atoms, provided that if the non-cyclic olefin monomer is monounsaturated, then it contains at least 5 carbon atoms;

wherein said addition product comprises a dimer or oligomer containing up to 4 total units of (a) and (b) monomers.

Claim 2. (canceled)

Claim 3. (original) The composition of claim 1 wherein said hydrogenated condensation product has a Brookfield viscosity of less than about 70 Pa-s (70,000 cP) at -30°C.

Claims 4 – 5. (canceled)

Claim 6. (previously presented) The composition of claim 1 wherein the vinyl arene is styrene, α -methylstyrene, or a ring-alkylated styrene.

Claims 7 – 8. (canceled)

Claim 9. (previously presented) The composition of claim 1 wherein the branched non-cyclic olefin monomer (b) contains 1, 2, or 3 ethylenic double bonds.

Claim 10. (previously presented) The composition of claim 1 wherein the branched non-cyclic olefin monomer (b) is selected from the group consisting of 2-methylbutene, branched hexenes, branched octenes, branched decenes, propylene trimers, propylene tetramers, and isobutylene dimers, trimers, and tetramers.

Claim 11. (previously presented) The composition of claim 1 wherein the branched non-cyclic olefin monomer (b) is isoprene.

Claim 12. (previously presented) The composition of claim 1 wherein the branched non-cyclic olefin (b) is a non-cyclic terpene.

Claim 13. (original) The composition of claim 1 wherein components (a) and (b) each comprise about 10 percent to about 90 percent by weight of the total of all monomers present in the addition product.

Claim 14. (previously presented) The composition of claim 1 wherein (a) comprises 40 to 80 weight percent of all monomers present in the addition product, and (b) comprises 60 to 20 weight percent of all such monomers.

Claim 15. (original) The composition of claim 1 wherein said fluid is prepared by the acid-catalyzed addition reaction of the monomers of (a) and (b).

Claim 16. (original) The composition of claim 15 wherein said addition reaction is conducted in the presence of a solvent.

Claim 17. (original) The composition of claim 1 further comprising at least one additive selected from the group consisting of dispersants, detergents, friction modifiers, antioxidants, metal passivators, viscosity modifiers and antiwear agents in an amount sufficient to improve the performance of said composition in a power transmission device.

Claim 18. (original) The composition of claim 1 further comprising an oil of lubricating viscosity other than said hydrogenated addition product.

Claim 19. (original) The composition of claim 1 further comprising at least one additional traction fluid.

Claim 20. (original) The composition of claim 1 comprising a plurality of said hydrogenated addition products having differing viscosities.

Claim 21. (original) A method for lubricating a power transmission apparatus, comprising employing therein the composition of claim 1.

Claim 22. (currently amended) A method for preparing a composition suitable for use as a traction fluid, comprising:

(a) combining

(i) at least one vinyl arene monomer containing a cyclic hydrocarbon structure, with

(ii) at least one branched non-cyclic olefin monomer of at least 4 carbon atoms, provided that if the olefin monomer is monounsaturated, then it contains at least 5 carbon atoms; and

(iii) an acid catalyst;

(b) maintaining the resulting mixture at about 25°C to about 150°C for a time sufficient to permit reaction of components (a)(i) and (a)(ii);

(c) optionally removing the volatile components from the product of (b);

and

(d) substantially completely hydrogenating the resulting reaction product;

wherein said addition product comprises a dimer or oligomer containing up to 4 total units of (a) and (b) monomers.

Claim 23. (original) The method of claim 22 wherein the acid catalyst is a sulfur acid, a phosphorus acid, or a halogen acid.

Claim 24. (original) The method of claim 22 wherein the acid catalyst of (iii) is a heteropolyacid in its acid, salt, or partially salted form.

Claim 25 (previously presented) The method of claim 22 wherein the acid catalyst of (iii) is a Lewis acid or a sulfonated crosslinked polystyrene resin.

Claim 26 (previously presented) The composition of claim 1 wherein the vinyl arene comprises a naphthalene nucleus.

Claim 27 (new) The composition of claim 1 wherein said addition product comprises a dimeric product being the 1:1 mole adduct of (a) and (b).